

Having described the invention, what is claimed is:

1. A slidable room comprising:
 - a frame adapted to be attached to a vehicle about an opening in the vehicle, the frame comprising:
 - two pre-assembled jambs, each jamb having: a plurality of pulleys thereon; a plurality of cable extension holes therein; and a plurality of cables, a first end of each cable extending around at least one pulley and through one cable extension hole, a second end of each cable extending beyond an end of the jamb;
 - a header connected to the jambs; and
 - a sill connected to the jambs;
 - a room, the room being adapted to be inserted into the vehicle opening and into the frame, the first end of the plurality of cables being attached to the room; and
 - a motor, the second end of the cables being operatively attached to the motor.
2. The slidable room according to claim 1, wherein each jamb comprises an outside jamb member and a wall clamp member, the outside jamb member and the wall clamp member having attachment flanges adapted to be attached to the vehicle.
3. The slidable room according to claim 1, wherein each jamb comprises an outside jamb member and a wall clamp member, the outside jamb member and the wall clamp member having complementary engaging flanges, wherein the outside jamb member engaging flange retainingly engages the wall clamp member engaging flange.
4. The slidable room according to claim 3, wherein the outside jamb member and the wall clamp member each have an attachment flange adapted to be attached to the vehicle, the wall clamp member attachment flange extending away from the wall clamp member engaging flange, being spaced from, and extending parallel to the outside jamb member attachment flange.
5. The slidable room according to claim 1, further comprising:

two chains; and

four cable chain brackets, a plurality of cable second ends and one chain being attached to each cable chain bracket, the chains being attached to sprockets on the motor.

6. The slidable room according to claim 1, further comprising:

two chains;

two cable chain brackets, a plurality of cable second ends being connected to each cable chain bracket and one end of each chain being connected to each cable chain bracket; and

an idler sprocket, the cable chain brackets being positioned between the motor and the idler sprocket,

one chain being attached to a sprocket on the motor, the other chain being attached to the idler sprocket.

7. The slidable room according to claim 6, wherein four cable second ends are connected to each cable chain bracket, two of the attached cables being connected to a left side of the room and two of the attached cables being connected to a right side of the room.

8. The slidable room according to claim 6, wherein the motor is positioned outboard of one side of the room and the idler sprocket is positioned outboard of the opposite side of the room.

9. The slidable room according to claim 1, further comprising an attachment anchor attached to the first end of each cable.

10. The slidable room according to claim 1, wherein the plurality of pulleys comprises a plurality of spaced apart double pulleys.

11. The slidable room according to claim 1, further comprising an end plug to the cable first ends, the end plugs being larger than the cable extension holes and preventing the cable first end from passing through the cable extension hole.

12. The slidable room according to claim 1, further comprising a corner connector at each corner of the frame, each corner connector being attached to one jamb and one of the header and the sill.

13. The slidable room according to claim 1, further comprising:
at least one track; and
at least one roller movably engaging the track, the room being positioned on the at least one roller.

14. The slidable room according to claim 13, wherein each roller comprises two rotatable wheels connected by an axle, one wheel engaging the track, the room being positioned on the other wheel.

15. The slidable room according to claim 13, wherein there are two tracks and at least two rollers.

16. A jamb for attachment to a vehicle and for use with a slidable room adapted to be installed in an opening in the vehicle, the jamb comprising:

an elongated jamb member, the elongated jamb member having a plurality of cable extension holes therein, the elongated jamb member being adapted for attachment to the vehicle adjacent the vehicle opening;

a plurality of pulleys rotatably attached to the elongated jamb member;

at least one cable, a first end of the at least one cable extending around at least one pulley and through a cable extension hole, a second end of the at least one cable extending beyond an end of the elongated jamb member.

17. The jamb according to claim 16, wherein the elongated jamb member comprises an outside jamb member and a wall clamp member, the wall clamp member being retainingly engaged with the outside jamb member.

18. The jamb according to claim 17, wherein the outside jamb member and the wall clamp member have complementary engaging flanges, wherein the outside jamb member engaging flange retainingly engages the wall clamp member engaging flange.

19. The jamb according to claim 18, wherein the outside jamb member and the wall clamp member each have an attachment flange adapted to be attached to the vehicle, the wall clamp member attachment flange extending away from the wall clamp member engaging flange, being spaced from, and extending parallel to the outside jamb member attachment flange.

20. The jamb according to claim 16, the elongated jamb member comprises an outside jamb member and a wall clamp member, the outside jamb member and the wall clamp member each having an attachment flanges adapted to be attached to the vehicle, the attachment flanges being parallel to one another and spaced from one another.

21. The jamb according to claim 16, wherein the plurality of pulleys are pre-attached to the elongated jamb member and the at least one cable is pre-strung around at least one pulley prior to attachment of the elongated jamb member to the vehicle.

22. The jamb according to claim 16, further comprising an attachment anchor attached to the first end of the at least one cable.

23. The jamb according to claim 16, wherein the plurality of pulleys comprises a plurality of spaced apart double pulleys.

24. A frame member for attachment to a vehicle and for use with a slideable room adapted to be installed in the vehicle, the frame member comprising:

an elongated first member; and

an elongated wall clamp member,

the first member and the wall clamp member each having an attachment flange adapted to be attached to the vehicle, the first member and the wall clamp member having complementary

longitudinally extending engaging flanges wherein the first member engaging flange retainingly engages the wall clamp member engaging flange.

25. The frame member according to claim 24, wherein the attachment flanges extend parallel to one another and are spaced from one another.

26. The frame member according to claim 25, wherein the first member engaging flange is an elongated slot, the wall clamp member engaging flange is an elongated hook, the hook retainingly fitting into the slot.

27. The frame member according to claim 24, wherein the first member has a plurality of cable extension holes therein; and further comprising:

a plurality of pulleys rotatably attached to the first member; and

at least one cable, a first end of the at least one cable extending around at least one pulley and through a cable extension hole, a second end of the at least one cable extending beyond an end of the elongated jamb member.

28. A vehicle comprising:

at least one wall having an opening therein;

a pre-assembled slidable room frame comprising: two interconnecting frames and two pre-assembled cable frames, each cable frame having: a plurality of pulleys thereon; a plurality of cable extension holes therein; and a plurality of cables, a first end of each cable extending around at least one pulley and through one cable extension hole, a second end of each cable extending beyond an end of the cable frame, the slidable room frame being attached about the opening of the at least one wall;

a room inserted into the opening of the at least one wall, the room being reciprocable between an extended position and a retracted position, the first end of the plurality of cables being attached to the room; and

a motor attached to the at least one wall, the second ends of the cables being operatively attached to the motor.

29. The vehicle according to claim 28, wherein each cable frame comprises an outside jamb member and a wall clamp member, the outside jamb member and the wall clamp member being attached to the at least one wall.

30. The vehicle according to claim 29, wherein the outside jamb member and the wall clamp member have complementary engaging flanges, the outside jamb member engaging flange retainingly engaging the wall clamp member engaging flange.

31. The vehicle according to claim 30, wherein the outside jamb member and the wall clamp member each have an attachment flange attached to the vehicle, the wall clamp member attachment flange extending away from the wall clamp member engaging flange, being spaced from, and extending parallel to the outside jamb member attachment flange.

32. The vehicle according to claim 29, wherein the outside jamb member and the wall clamp member each have an attachment flange attached to the vehicle, the attachment flanges being parallel to one another and spaced from one another.

33. The vehicle according to claim 28, wherein the plurality of cables in each cable frame comprises four cables,

two of the cable first ends being vertically spaced from the other two of the cable first ends; and

two of the cable first ends being attached to an outer portion of the room; and the other two of the cable first ends being attached to an inner portion of the room.

34. The vehicle according to claim 28, further comprising:

two chains; and

four cable chain brackets, a plurality of cable second ends and an end of each chain being attached to each cable chain bracket, each chain being attached to a sprocket on the motor.

35. The vehicle according to claim 28, further comprising:
 - two chains;
 - two cable chain brackets, a plurality of cable second ends being connected to each cable chain bracket and one end of each chain being connected to each cable chain bracket; and
 - an idler sprocket, the cable chain brackets being positioned between the motor and the idler sprocket,
 - one chain being attached to a sprocket on the motor, the other chain being attached to the idler sprocket.
36. The vehicle according to claim 35, wherein four cable second ends are connected to each cable chain bracket, two of the attached cables being connected to a left side of the room and two of the attached cables being connected to a right side of the room.
37. The vehicle according to claim 35, wherein the motor is positioned outboard of one side of the room and the idler sprocket is positioned outboard of the opposite side of the room.
38. The vehicle according to claim 28, wherein each cable frame is attached adjacent a vertical edge of the opening and each interconnecting frame is attached adjacent to a horizontal edge of the vehicle opening.
39. The vehicle according to claim 28, further comprising:
 - at least one track; and
 - at least one roller movably engaging the track, the room being positioned on the at least one roller.
40. The vehicle according to claim 39, wherein each roller comprises two rotatable wheels connected by an axle, one wheel engaging the track, the room being positioned on the other wheel.

41. The vehicle according to claim 39, wherein there are two tracks and at least two rollers.
42. A cable adjuster comprising:
 - a body; and
 - a plurality of threaded adjusters attached to the body, an end of the threaded adjusters being adapted to be connected to a flexible member.
43. The cable adjuster according to claim 42, wherein the body comprises two identical body members nested together.
44. The cable adjuster according to claim 42, wherein each threaded adjuster comprises: a threaded rod extending through the body, the threaded rod being linearly movable relative to the body; and a threaded nut on one end of the threaded rod, the opposite end of the threaded rod being the end adapted for connection to a flexible member, the threaded nut bearing against an external surface of the body.
45. The cable adjuster according to claim 42, wherein at least one of the threaded adjusters is adapted for connection to a chain, and at least two of the threaded adjusters are adapted for connection to cables.
46. The cable adjuster according to claim 42, wherein there are three threaded adjusters, the threaded nut for two threaded adjusters being positioned on a first side of the body and the threaded nut for the third threaded adjuster being positioned on a second side of the body, the first side of the body being opposite the second side of the body, the third threaded adjuster being positioned between the two threaded adjusters.
47. The cable adjuster according to claim 42, wherein there are six threaded adjusters, two threaded adjusters being adapted for connection to a chain, and four threaded adjusters being adapted for connection to cables.

48. The cable adjuster according to claim 42, further comprising:
an anti-vibration clip engaging at least one threaded adjuster, the anti-vibration clip resisting rotation of the at least one threaded adjuster caused by vibration.
49. The cable adjuster according to claim 48, wherein the anti-vibration clip is formed from resilient material.
50. The cable adjuster according to claim 49, wherein the resilient material is spring steel.
51. The cable adjuster according to claim 49, wherein the anti-vibration clip includes a tab engaging a flat surface of the at least one threaded adjuster.
52. A slidable room comprising:
a room movable between an extended position and a retracted position;
a drive mechanism for moving the room between the extended position and the retracted position, the drive mechanism comprising:
a motor having two drive sprockets;
two chains, each chain having two ends, each chain engaging one drive sprocket;
eight cables, each cable having a first end and a second end, each cable first end being attached to the room; and
four cable adjusters, each cable adjuster including three threaded adjusters, a first threaded adjuster being attached to one chain end, second and third threaded adjusters being attached to cable second ends.
53. The slidable room according to claim 52, wherein each cable adjuster has three threaded adjusters.
54. The slidable room according to claim 52, wherein each cable adjuster has six threaded adjusters.

55. The slidable room according to claim 52, wherein:

one cable adjuster is a left inside cable adjuster, one cable adjuster is a right inside cable adjuster, one cable adjuster is a left outside cable adjuster, and one cable adjuster is a right outside cable adjuster,

one of the two cables attached to each cable adjuster is attached to a lower portion of the room, the other of the two cables attached to each cable adjuster is attached to an upper portion of the room.

56. The slidable room according to claim 55, wherein adjustment of the first threaded adjuster adjusts tension in the chain and cables for one of a left side of the room and a right side of the room.

57. The slidable room according to claim 55, wherein adjustment of the second threaded adjuster adjusts alignment of a lower portion of the room, and adjustment of the third threaded adjuster adjusts alignment of an upper portion of the room.

58. The slidable room according to claim 52, wherein there are two cable adjusters, two chains and four cables being connected to each cable adjuster.

59. The slidable room according to claim 52, further comprising:

each cable adjuster having identifying indicia thereon,

a cable adjustment instruction template having cable adjuster indicia thereon, the template cable adjuster indicia corresponding to the cable adjuster identifying indicia, the template further including adjustment instruction indicia for each cable adjuster indicia.

60. A method of adjusting a slidable room in an opening of a vehicle, the slidable room having a plurality of cable adjusters, each cable adjuster comprising a plurality of threaded adjusters, each threaded adjuster comprising a threaded rod and an adjusting nut, each cable adjuster connecting a chain to two cables, the method comprising the steps of:

performing at least one of the following steps:

adjusting tension for a left side seal when the room is in an extended position;
adjusting tension for a left side seal when the room is in a retracted position;
adjusting tension for a right side seal when the room is in an extended position;
adjusting tension for a right side seal when the room is in a retracted position;
adjusting chain and cable tension for a right side of the room; and
adjusting chain and cable tension for a left side of the room,

wherein each step of adjusting comprises rotating one of the adjusting nuts on one of the cable adjusters.

61. A method according to claim 60, wherein:

the step of adjusting tension for a left side seal when the room is in an extended position comprises at least one of:

adjusting tension for a top of the room;
adjusting tension for a bottom of the room;

the step of adjusting tension for a left side seal when the room is in a retracted position comprises at least one of:

adjusting tension for a top of the room;
adjusting tension for a bottom of the room;

the step of adjusting tension for a right side seal when the room is in an extended position comprises at least one of:

adjusting tension for a top of the room;
adjusting tension for a bottom of the room;

the step of adjusting tension for a right side seal when the room is in a retracted position comprises at least one of:

adjusting tension for a top of the room;
adjusting tension for a bottom of the room;

62 A method of installing a slidable room in a vehicle, the vehicle having an opening therein, the method comprising the steps of:

providing a frame, the frame comprising two cable frames and two interconnecting frames, each cable frame having:

a plurality of pulleys thereon; a plurality of cable extension holes therein; and, a plurality of cables, a first end of the cables extending around at least one pulley and through one cable extension hole, a second end of the cables extending beyond an end of the cable frame;

attaching the frame to the vehicle about the opening in the vehicle;

attaching a motor to the vehicle;

attaching the cables to the motor;

inserting the slidable room into the vehicle opening and through the frame; and

attaching the first ends of the cables to the slidable room.

63. The method according to claim 62, wherein the step of providing a frame further comprises: each cable frame further comprising an outside jamb member and a wall clamp member, the plurality of pulleys being attached to the outside jamb member;

and the step of attaching the frame to the vehicle comprises attaching the cable frame outside jamb members to the vehicle; retainingly engaging the wall clamp member with the outside jamb member; and attaching the wall clamp member to the vehicle.

64. The method according to claim 62, wherein in the step of attaching the cables to the motor comprises:

providing two chains having cable chain brackets attached to ends thereof;

attaching the chains to sprockets on the motor; and

attaching the second ends of the cables to the cable chain brackets.

65. The method according to claim 62, wherein the two cable frames and the two interconnecting frames are connected together prior to the step of attaching the frame to the vehicle.

66. The method according to claim 62, wherein the step of attaching the frame to the vehicle comprises:

attaching one cable frame to the vehicle adjacent the vehicle opening;
attaching the other cable frame to the vehicle adjacent the vehicle opening;
attaching one interconnecting frame to the vehicle adjacent the vehicle opening; and
attaching the other interconnecting frame to the vehicle adjacent the vehicle opening.

67. The method according to claim 62, wherein the frame is attached to the vehicle such that each cable frame is attached adjacent a vertical edge of the vehicle opening and each interconnecting frame is attached adjacent a horizontal edge of the vehicle opening.

68. The method according to claim 62, wherein the step of providing a frame further comprises providing: two chains having cable chain brackets attached to ends thereof; and, two corner pulley brackets, the second ends of the cables extending through one of the corner pulley brackets and being attached to one of the cable chain brackets;

and further comprises attaching the corner pulley brackets to the vehicle;
and the step of attaching the cables to the motor comprises attaching the chains to the motor.

69. The method according to claim 62, wherein the step of providing a frame further comprises providing: an idler sprocket; two chains having cable chain brackets attached to ends thereof; and, two corner pulley brackets, the second ends of the cables extending through one of the corner pulley brackets and being attached to one of the cable chain brackets;

and further comprises attaching the corner pulley brackets to the vehicle and attaching the idler sprocket to the vehicle;
and the step of attaching the cables to the motor comprises attaching one chain to the motor and attaching the other chain to the idler sprocket.

70. A method of installing a frame member about an edge of an opening in a wall, the method comprising:

providing an elongated first member;
providing an elongated clamp member;

attaching the first member to an outside surface of the wall adjacent the edge, the first member laterally extending about the edge;

engaging the clamp member with the first member; and

attaching the clamp member to an inside surface of the wall.

71. The method according to claim 70, wherein the step of engaging the clamp member with the first member comprises:

positioning the clamp member in an insertion position wherein the clamp member is at an angle relative to the first member;

inserting a portion of the clamp member into a corresponding portion of the first member; and

rotating the clamp member from the insertion position to an installed position wherein a portion of the clamp member contacts the inside surface of the wall.

72. The method according to claim 70, wherein prior to the step of providing an elongated first member, the first member is attached to a plurality of additional framing members in the form of a four-sided frame.